

**ORDER**

**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

1100.157A

6/9/95

**NATIONAL SYSTEMS ENGINEERING DIVISIONS MAINTENANCE  
PROGRAM PROCEDURES, OPERATIONAL SUPPORT (AOS)**

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- 1 **PURPOSE.** This order prescribes operating procedures for the National Systems Engineering Divisions within Operational Support (AOS) in the implementation of the maintenance engineering support for the National Airspace System (NAS).. In this document, these divisions are referred to collectively as the National Systems Engineering Divisions (NSED).. This order also defines the delegated signature authority for NAS systems modification and maintenance documentation. These operating procedures for the NSED's are augmented by other directives.
- 2 **DISTRIBUTION.** This order is distributed to the division level within Airway Facilities, Air Traffic, Office of System Architecture and Program Evaluation, and the Office of Communications, Navigation, and Surveillance Systems in Washington; to division level at the FAA Logistics Center and the Airway Facilities Division at the FAA Academy; to the branch level in the Engineering, Research, and Development Service, Resource Management Service, and Engineering, Test, and Evaluation Service at the FAA Technical Center; to the branch level in the regional Airway Facilities divisions; and to all Airway Facilities field offices with with a standard distribution.
3. **CANCELLATION.** Order 1100.157,, National Engineering Field Support Division Maintenance Program Procedures, dated March 17, 1992,, is canceled.
4. **EXPLANATION OF CHANGES.** This revision reflects the changes required by the establishment of AOS which combined the three field support divisions, ASM-400, ASM-600, and ATR-400 (National Automation Engineering Field Support Division, National Engineering Field Support Division, and National Automation Field Support Division, respectively).

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Initiated By: AOS-100

## 5. DELEGATION OF AUTHORITY.

a. The authority to sign the following documents for the director is delegated to the **NSED** managers. This authority may be **redelegated** only to whomever is appointed in an acting capacity.

(1) Electronic equipment modifications (**EEM**)..

(2) Plant equipment modifications (**PEM**)..

(3) New modification handbooks.

(4) Minor revisions, changes, and corrections to maintenance technical handbooks.

(5) Site technical bulletins (**STB**)..

(6) Site program bulletins (**SPB**)..

(7) Notices effecting modifications and maintenance documentation.

(8) Table of contents for **6000** series modification directives.

b. The authority to sign new or major revisions to **maintenance** technical handbooks remains with the Director, **AOS-1**. A major revision is defined as a substantial change in the total concept of a handbook.

c. The authority to select the specific **NSED** responsible for field support of existing and new **NAS** systems, equipment, and software deployed into the FAA operational inventory shall remain with the Director, **AOS-1**. Program managers for new **NAS** systems, equipment, and software to be deployed shall get the identity of the **NSED** designated for their system(s) from **AOS-1**.

6. REPORTS. The **NSED** shall provide the following to **AOS-1**:

a. Project Status Report(s) (hardware, software, and documentation).

b. Contract Status Update Report.

c. Priority List Update Report.

7. RESPONSIBILITIES.

a. Operational Support is the office of primary responsibility (**OPR**) for the series of modification (**EEM/PEM**) handbooks, National Airspace System Configuration Management Documents (**NAS MD**), and the series of maintenance technical handbooks that contain maintenance standards, schedules, and procedures. The **NSED's** shall update, issue, and serve as the **OPR** for these **NAS MD** documents. All material for these documents is issued by the authority of **AOS-1.. AOS** provides the authorizations for the development and deployment of engineering changes to the configuration management baseline throughout the life of fielded equipment, systems, or software in the **NAS..** The actual implementation of engineering changes into the field operation is in consonance with the latest version of Orders **6032.1,,** Modification to Ground Facilities, Systems, and Equipment in the National Airspace System, and **1100.134,,** Maintenance of National Airspace System Automation.

b. The Air Traffic Configuration Control Board (**ATCCB**) shall retain configuration control decision (**CCD**) control over operational Air Traffic Control (**ATC**) software systems. That is, **CCD's** required to change the **NAS MD's** for the **ATC** HOST Computer System, Automated Radar Terminal System (**ARTS**), and the Flight Service Automated System (**FSAS**) shall be signed by the **ATCCB**. The cognizant Air Traffic **OPR's** (**ATM/ATP/ATR/ATZ**) shall verify operational functionality of- all' functional changes to the operational software systems and ensure that all Air Traffic operational, training, and procedural requirements will be accomplished. The cognizant **NSED's** shall be a **MUST** evaluator of all such **case** files before approval by the **ATCCB** in accordance with the latest edition of Order **1800.8,,** National Airspace System Configuration Management.

c. The program managers/directors in the program offices for Communications, Navigation, and Surveillance Systems, Air Traffic Systems Development, and **NAS** Transition and Implementation Service are responsible for:

(1) Acquiring camera ready copies of instruction manuals, component or assembly level data, software source code and documentation, maintenance support equipment (i.e., installation and delivery of a copy of the fielded system(s) for second-level support and configuration management to the appropriate **NSED**),, compilers, automatic test equipment (**ATE**), test program sets (**TPS**),, and special programmable read-only memory (**PROM**) and electrically erasable programmable read-only memory (**EEPROM**),, and programming equipment for all deployed equipment, systems, and software procured by program offices.

(2) Performing coordination and technical consultation with the cognizant **NSED** during the acquisition process prior to field delivery of new systems, equipment, or software.

(3) Assuring that accurate and complete baseline documentation is delivered to the **NSED** for each system or equipment prior to system shakedown testing (SST). Then from that juncture, all subsequent modifications required to satisfy contractual or operational commitments shall be funded by the responsible program office but approved for deployment by the cognizant **NSED**. From this point on in the life cycle of the system, equipment, or software, no modifications shall be delivered to the field or implemented unless approved by the cognizant **NSED**. Contractor developed modifications shall be reviewed and approved by the **NSED**. The release of these modifications shall be via an **EEM**, **PEM**, **STB**, or **SPB** issued by the cognizant **NSED**.

(4) Coordinating with the cognizant **NSED** on the development, acceptance, and implementation of enhancements or improvements to operational systems, equipment, or software.

(5) Providing funds for software and equipment modifications in support of program modifications which occur while equipment is still being fielded and for test equipment required to perform shakedown testing. This includes funding for the retrofit of systems already fielded and funding to support key-site activity for new software releases, major program technical report (**PTR**) fixes, or installation of national local patches.

(6) Promoting the timely development of technical **knowledge** and proficiency in **NSED** personnel on new systems, software, and equipment being installed in the **NAS**. This shall be facilitated by **NSED**'s formal participation in at least the following phases of the facilities and equipment (F&E) program:

(a) Specification, system, software, and equipment design reviews.

(b) Acceptance testing, including all phases throughout operational test and evaluation (**OT&E**).

(c) Instruction book reviews, in-process and final.

(d) Technical training sessions, normal and **NSED** specified, provided by the program office and/or the contractor(s).

(7) Establishing the product baseline for those systems under their purview in cooperation with the **NSED**. Refer to Order **1800.8**.

(8) Placing baseline documents into the National Airspace System Master Configuration Index, **NAS-MD-001**.

(9) Transferring the baseline management to the Maintenance Engineering Configuration Control Board (**MECCB**) or the **ATCCB** as appropriate after establishment of the product baseline:

(10) Providing funding and contractor personnel for software, hardware, and/or firmware engineering support services through the **NSED** for a minimum of 2 years. This support is to begin at the time of commissioning the first operational facility.

(11) Providing contract vehicle(s) to extend engineering support services for at least an additional 3 years beyond the initial 2 years. The contractor extension(s) shall be funded by **AOS**.

d! The **NSED**'s are responsible for:

(1) Providing engineering support for deployment readiness review on new systems by directing the development and accomplishment of shakedown testing for assigned equipment, software, and systems. See the latest version of Order **1810.4**, FAA **NAS** Test and Evaluation Policy.

(2) Providing modification engineering, software maintenance, and documentation for the **NAS**. Except for **field-**employed emergency modifications, **NSED's** are the **ONLY** organizations through which modifications to commissioned **NAS** systems, software, and equipment shall be authorized or implemented. These divisions maintain the baseline configuration for all commissioned **NAS** systems, equipment, and software. This responsibility begins when the first contract item is operational in the **NAS**. The **NSED's** shall ensure that all logistics support requirements are addressed in modification planning.

(a) The **modification engineering functions** include the design, development, testing, and acquisition associated with hardware and software modifications to commissioned **NAS** facilities and systems.

(b) The **software maintenance function** includes the maintenance of the baseline software, design, development, testing, and delivery of computer program improvements and corrections in support of operational, functional, diagnostic, and various support programs. The term software as used in this order encompasses firmware. Attributes of firmware which are not covered in software maintenance are addressed in the modification engineering function.

(c) The documentation function includes preparation, editing, proofreading, printing, and distribution of all documentation generated by the **NSED's** in their hardware and software maintenance engineering functions. Also included are the generation of new maintenance technical and modification handbooks, updating of maintenance technical handbooks, issuing changes to modification handbooks and associated technical instruction books and software manuals, maintaining directives case files, and maintaining a complete file of handbooks and instruction books reflecting the current level of agency-approved equipment modifications and maintenance guidance, standards, and tolerances. The **NSED** software engineering maintenance responsibilities include, but are not limited to, Computer Program Functional Specifications (**CPFS**), User's Manuals, Operator's Manuals, and all appropriate **DOD-STD-2167A** compliant documentation. The **NSED's** also provide for reprinting and subsequent restocking services for all documentation generated by them.

(d) The NSED's provide engineering technical support to regional field offices. The **NSED's** are the ONLY organizations authorized to provide second-level engineering/technical support for commissioned **NAS** facilities, systems, subsystems, equipment, and software.

(e) The NSED's provide the authorizations for development and deployment of all modifications for systems, software, and equipment assigned to them. Refer to Appendix 1, **NSED** Facility Assignments.

(f) Participating in national airspace integrated logistics support management teams (**NAISMT**) to ensure that hardware and software support issues, including identification of maintenance and training support requirements are addressed in a timely manner.

**e. Regional AF divisions** assure that known or perceived equipment or system problems and deficiencies are corrected and/or reported to the appropriate **NSED**. The regional **AF** personnel are responsible for maintenance and repair of their systems. The site **AF** staff, in cooperation with the sector and regional office support functions, is the first-level support organization. **AOS** serves as the agency's second-level support organization for the **NAS**.

**8. AUTHORIZATIONS AND APPROVALS.** An **authorizing** organization is the **office** providing permission or sanction to proceed **with** a given task or project. Once a task or project is authorized, an approving **organization** approves the project **expenditures**, technical solutions, **documentation**, implementing directives, and sanctions installation and/or operational use of final product **(s)** at **NAS** field facilities.

a. The NSED's have full authorization to carry out responsibilities delegated by the AOS-1.

b. Figure 1 identifies the authorizing and approving offices for the activities indicated.

c. The terms modification and change apply equally to hardware, software, or documentation. These different areas of effort are all treated the same as far as reporting problems and requesting changes are concerned. This philosophy applies throughout this order.

d. The managers of the NSED's shall approve the expenditure of funds on authorized projects. They are authorized to adjust NSED project expenditures, as appropriate, so long as the total program funds assigned are not exceeded. Any adjustments made shall be reported in quarterly status reports to AOS-1.

e. The NSED managers shall also approve the expenditure of assigned reserve funds or other project surpluses for important, unfunded projects undertaken during the program year. These projects will be identified, along with estimated cost, in the regular status reports (see paragraph 6). The total program funds assigned shall not be exceeded.

f. Time-critical changes to computer software programs- or ! facilities, systems, subsystems, and equipment under the purview of the NSED's may be made by general notice ((GENOT)), notice, or other interim documentation by the approving NSED.. An urgent NAS change proposal ((NCP)), if required to reflect such changes, shall be submitted as soon as feasible. Permanent documentation reflecting these changes shall be assigned a high priority for accomplishment.

FIGURE 1. AUTHORIZING AND APPROVING OFFICES FOR NSED ACTIVITIES

Note: **AOS-1** is the director of **AOS**, **NSED** is the manager of the **NSED**, **RO** is the regional **AF/AT** division manager, and **SM** is the sector manager..

<u>Activity</u>	<u>Authorizing Office</u>	<u>Approving Office</u>
1. <b>NAS</b> change proposal ( <b>NCP</b> ) waiver approval	Varies	Varies, see Order <b>1800.8</b>
2. New maintenance <b>technical</b> handbooks and major revisions of handbooks	<b>AOS-1</b>	<b>AOS-1</b>
3. All national standard handbook changes and minor revisions; new modification handbooks; technical issuance changes; <b>EEM/PEM's; SPB's; STB's</b>	<b>NSED</b> (See Par. <b>5a</b> )	<b>NSED</b> (See Par. <b>5a</b> )
4. <b>NSED</b> field test	In accordance with the latest version of Orders <b>6032.1</b> and <b>1100.134</b>	<del><b>NSED</b></del>
5. Emergency modification		
a. Non-software	<b>RO</b> or <b>SM</b> according to region's policy	<b>RO</b> or <b>SM</b> according to region's policy
b. software	In accordance with the latest version of Orders <b>6032.1</b> and <b>1100.134</b>	<b>NSED</b>
6. Notices effecting <b>implemen-</b> <b>tation</b> of a modification issued by the <b>NSED</b>	<b>NSED</b>	<b>NSED</b>
7. Notices effecting application of maintenance technical handbooks	<b>NSED</b>	<b>NSED</b>



9. PROBLEM IDENTIFICATION.

a. Discrepancies software, hardware, or documentation in systems for which the **NSED"s** have been assigned field support responsibilities (see Appendix 1, **NSED Facility Assignments**) will be referred directly to the appropriate **NSED** from all organizational levels. Information copies of the reports on these discrepancies should be forwarded to the cognizant regional office. The referral methods can be by whatever means deemed appropriate; i.e., letters, telephone contacts, etc. Problems considered not eligible for national implementation will be returned to the submitting organization without further review.

b. The **NSED"s** will also identify and resolve problems encountered in the course of their daily activities.

c. Problems identified in systems, subsystems, facilities, and equipment, which fall within the criteria established in Order **1800.8**, will be screened and processed in accordance with the procedure outlined in that order.

d. Any improvement recommended for national consideration shall be evaluated by each organizational level to which it is submitted to be sure that only the most significant requests are forwarded to the next higher level. To do this, a standard set of screening- criteria is established and all requests will be screened through supervisory and management channels, beginning at the originating office, using these criteria. The basis of the criteria is user service and reflects safety, reliability, and cost/savings, in that order. Refer to paragraph **10** for a full explanation of the screening criteria.

e. Employee suggestions impacting configuration-managed items covered by Order **1800.8** are required by the latest version of Order **3450.7**, Incentive Awards Program, to be evaluated and processed according to all provisions of Order **1800.8**. The cognizant **NSED** shall **prescreen** suggestion casefiles, using the paragraph **10** for criteria, develop, and implement any resulting **CCD** pertaining to the suggestion.

f. **NCP** case files submitted by the field shall be **prescreened** by the cognizant **NSED**. Applying the criteria outlined in paragraph **10**, the **NSED"s** shall:

(1) Determine the case file category and needed level of processing for:

(a) Regional-level impact issues.

(b) **NSED** documentation and supply support impact issues.

(c) National impact issues requiring broad review.

NOTE: Regional and documentation/supply support-level case files shall be processed wholly within the **NSED**. Case files on issues having national impact and requiring broad review ~~shall be~~ forwarded for processing.

(2) After determining the impact level of a proposed change, the **NSED** shall take the appropriate action as follows:

(a) **Recommend** approval and forward national impact case files to the Engineering Specialties Branch, **ASD-140**, for **NCP** processing.

(b) ~~Disapprove~~ the case file stating the reason(s) and returning it to the originating region.

(c) ~~Return~~ the case file to the originating office for additional information.

**10 SCREENING CRITERIA** The following criteria shall be applied during case file evaluations to determine whether the proposed change can be approved. Generally, the equipment/facility type to which a proposed modification applies shall not be undergoing replacement or scheduled for replacement in the FAA inventory within 2 years from the date screening criteria are being applied. Exceptions to this are proposed changes of an emergency or urgent nature ~~that are~~ ; considered critical to the **NAS** which shall all be forwarded. Upon satisfying these initial review criteria, one or more of the following must also be satisfied for a proposal to qualify for further consideration.

a. Modifications to improve **reliability/availability** which show identifiable increases or are supported by sufficient outage/failure data to show operational impact. The criticality of the facility to the **NAS**, useability, internal redundancy, and overlapping coverage or alternate facilities must be considered. This criteria does not sanction convenience modifications or any changes that degrade system reliability/availability. Any review level may reject a proposed change if its merits are not sufficiently demonstrated.

b. Occupational **safety** modifications that identify a specific **agency**' or the Occupational Safety and Health Act standard(s) being violated unless a cursory examination reveals an obvious hazard.

c. Potential cost **savings** exceed the estimated costs of evaluation, development, implementation, and materials.

d. ~~Time-savings~~ or convenience modifications producing tangible employee-hour savings by facility type that can be reflected in staffing standards.

e. **Energy-saving** modifications, the cost of which amortize within a **150**year period.

f Documentation improvements about clarification or correction of instructions contained in the **NAS** maintenance handbooks or manufacturers technical instruction books; i.e. provided the life expectancy criterion specified in paragraph **10** are met.

## **11. PROJECT ASSIGNMENTS.**

a. Project assignments to the **NSED** are normally made using FAA Form **1800-49**, **NAS** Configuration Control Decision. However, projects may become assignments to the **NSED's** through other less formal processes. These include hardware discrepancy reports (**HDR**), program technical reports (**PTR**), letters, **telecons**, program directives, etc. Other projects may be undertaken at the discretion of the **NSED** manager.

b A numbering system shall be established by each **NSED** for the purpose of project identification. The **NSED** shall maintain a complete listing of projects assigned and develop a priority for accomplishment.

c. The regional AF divisions may volunteer to accomplish projects normally undertaken by the **NSED**. They may wish to establish technical assistance teams for problem analysis. These teams should be defined in advance of development of needs. Volunteer assistance will not be permitted in project approval, printing, contract awarding, management, and release of modification kits, parts, or equipment for field organizations. All of these excepted tasks shall be accomplished only by the **NSED**. Volunteer organizations shall consult with the **NSED** on any projects so that all plans for implementation, including documents for procurement and implementing directives, will be completely developed to conform with national standards. Final approval of all documents, prototypes, directives, and project reports shall be made by the appropriate **NSED**. **Any** projects undertaken shall be completed in their entirety to national standards. The national standards include, but are not limited to, the latest versions of:

(1) Order **1320.58**, Equipment and Facility Directives modification and Maintenance Technical Handbook.

(2) Order **1320.1**, FAA Directives System.

(3) Order **6032.1**, Modifications to Ground Facilities, Systems, and Equipment in the National Airspace System.

(4) **FAA-D-2494/b**, Technical Instruction Book Manuscript: Electronic, Electrical, and Mechanical Equipment, Requirements for Preparation of Manuscript and Production of Books.

(5) ~~DOD-STD-2167A~~, Defense System Software Development.

(6) Current internally imposed standards each **NSED** uses to assure quality products are delivered for field use.

**12. PROGRAM FUNDING AND DEVELOPMENT** Funding to support the **modification** program activities of the **NSED** shall be budgeted by the **NSED** and submitted as part of their yearly operations funds estimates for inclusion in each year's **AOS** budget. Some projects may require and receive funding through a program office or other source from F&E appropriations.

**13. TECHNICAL SUPPORT** The **NSED's** shall provide technical support to **all** commissioned systems, subsystems, facilities, and equipment in the FAA inventory. Refer to appendix 1 for the specific systems assigned to each **NSED**. The **NSED's** shall also provide support to F&E projects. The F&E support for a new or proposed **NAS** system begins when an **NSED** is selected by **AOS-1** and resources are identified. The F&E support shall extend through commissioning of the final system. The **NSED** shall maintain a standard configuration (baseline) throughout the life of the equipment or system. Changes to the baseline shall be coordinated for information only with the appropriate program office(s).

**14. FIELD SUPPORT** Engineering support to the field is provided by the **NSED's**. New systems added to the FAA inventory will immediately be provided field support by the cognizant **NSED** unless specific arrangements are made to provide **NSED-managed** contractor second-level field support. This service may be provided by telephone and, where necessary, **onsite** assistance shall be provided. The service is available on a **24-hour** basis. Direct communications with the cognizant **NSED** is strongly encouraged. **Onsite** support activity, travel, and expenses for **NSED** personnel are funded by the **NSED**.

**15. PREPARATION AND APPROVAL OF DIRECTIVES.**

a. **Directives Management.** Directives management representatives are designated within the **NSED's** to provide for the necessary directives activities. The Planning and Policy Division, **AFZ-600**, is responsible for the overall **AOS** directives management function and provides guidance and oversight of all directives within the purview of **AOS**.

b. **Preparation of Documents** Documentation in support of **maintenance** technical handbooks and modification handbooks (**EEM/PEM**) shall be prepared in accordance with Order **1320.58**.

c. **Routing Approval Packages.**

(1) **All modification directives** and maintenance technical handbooks and changes approved by the **NSED's** for the **AOS-1** are

printed and distributed in accordance with the established distribution procedures for the particular system, software, or equipment. These directives include, but are not limited to, **EEM"s**, **PEM"s**, **SPB"s**, and **STB"s**.

(2) All new maintenance technical handbooks and complete major revisions to maintenance technical handbooks shall be approved and signed by **AOS-1**. Editorial, coordination, and publishing responsibilities remain with the **NSED"s** who prepared the documents.

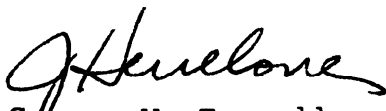
d Release of Modification Directives. Modification directives shall not be released to the field prior to release of any associated modification kits, tapes, disks, or other supporting material. No modification or modification directive shall be released by any organization other than the **NSED"s** for any **NAS** system or facility.

**16** CONFIGURATION MANAGEMENT The configuration of all facilities, systems, subsystems, equipment, and software under **NAS** configuration management control, as listed in **NAS-MD-001**, shall be managed in accordance with the latest versions of Orders **1800.8**, **1100.134**, and **1100.145**.

a. The operational baseline configuration of all new **systems**, facilities, subsystems, equipment, or software added to the FAA inventory shall be maintained by the designated **NSED**. This includes product baseline configuration and users documentation and data. The product baseline is established by the FAA upon completion of the functional and physical configuration audits (**FCA**, **PCA**) and following first article acceptance. (For further information, refer to Order **1800.8**.)

b. The appropriate NSED will provide control of a baseline configuration on any designated facility. Except under emergency conditions, as indicated in figure 1, no change(s) shall be performed on a system unless approved by the cognizant **NSED**.

c. The designated NSED will assist the responsible program office in getting all delivered systems, subsystems, equipment, and software with configurations below the defined baseline upgraded to the baseline configuration. Attaining the baseline configuration for all down-level facilities is the responsibility of the cognizant program office. The implementation of **CCD** authorized changes from the defined baseline configuration are the responsibility of the cognizant **NSED**.

*for*   
George W. Terrell  
Program Director for Operational Support



**APPENDIX 1. NSED FACILITY ASSIGNMENTS**

NOTE: For descriptions of facility contractions, see the latest version of Order **1375.4**, Standard Data Elements and Codes - Facility identification and Supplemental Standards.

**NATIONAL AIRWAY SYSTEMS ENGINEERING DIVISION, AOS-200**

ACD	DMER	LLWAS	PRM
ACEPS	DSRCE	<del>MALS</del>	RRH
AID	DTE	MALSR	RRWDS
ALS	DVR	MAPPER	RTR
ALSF	EDPS	MAREQ	RSS
ALTE	ELD	MCEPS	RVR
ANICS	ETVS	MCR	SALS
ARBCN	FAATSAT	MCT	SAN
ARCRB	FAC	MDS	SB
ARMS	FIFO	MHFR	SCAT-1
ARSR	FLD	MIM	SEE
ARTCC	FM	MLS	SDM
ASDE	FMA	MM	SSALR
ASI	FOTS	MTDS	SSALS
ASOS	FPS	NARACS	SSO
ASR*	FSS	NDB	SSRBD
ATBM	GATR	NEXRAD	STATMUX
ATCBI	GDL	OAW	STVS
ATCT	GFR	ODALS	9X
ATIS	GPS	OFFRD	TACAN
ATRAM	GS	OLD	TACR
AWANS	H	OM	TCD
AWIS	HCVR	PAPI	TCSS
AWOS	HEAT	PATWAS	TDWR
BDIS	HH	PAR	TELEX
BRITE	HIWAS	PCS	TML
BUEC	IATSC	PRM	TR
CCMS	ICSS	PX	TRACO
CCTV	IFSS	RAPCO	TRACAB
CERAP	IM	RATCF	TROPO
CHI	IMSLA	RBC	TWEB
CKT	IMLSE	RBDE	UB
CMLT	ITWS	RCAG	UPS
COMCO	LCOTE	RCF	VAS
CTRB	LDA	RCIU	VASI
CST	LDIN	RCL	VEHS
DASI	LDRCL	RCO	VFSS
DF	LINCS	RDVS	VMS
DME	LIVQ	REIL	VOR
DASI	LMM	RML	VOT
DGPS	LOC	RMS	WAAS
DMN	LOM	RMVC	WSM
			WSP

\*Except **ASR-9**

6/9/95

**APPENDIX 1. NSED FACILITY ASSIGNMENTS (CONTINUED)**

**NATIONAL ENROUTE SYSTEMS ENGINEERING DIVISION, AOS-300**

CCCH	DCC	MDARC	PDC
CDC	DARC	MSP	SMMC
CTS	FDIO	NOSS	TMS
CUE	FSP	NRC	WFMU
CPF	GENASYS	ODAPS	
CPH	ISSS	OFDPS	
CPN	MAPS	PAMRI	

**NATIONAL TERMINAL SYSTEMS ENGINEERING DIVISION, AOS-400**

ARTS	EARTS	TAMPA UMBRELLA	TCCC
DBRITE	SRAP	TAAS	TCDD

**NATIONAL DATA COMMUNICATION SYSTEMS ENGINEERING DIVISION, AOS-500**

ADAS	CWP	MCC	RBDPE
AFSS	DLP	MCS	RIT
AMCC	FDEP	MDT	RWP
ASR-9	FSAS	MPS	VSCS
AWP	FSDPS	MWP	WMSCW
CD	GMCC	NADIN	
CNS	GWDS	RASS	